

XIII.—*List of Coleoptera received from Old Calabar, on the West Coast of Africa.* By ANDREW MURRAY, Edinburgh.

PART I.

A PART of the West Coast of Africa, about the natural productions of which we knew less than many other parts of the coast, has within the last few years been opened up to us by the establishment of a mission station at Old Calabar. This station has been established by the United Presbyterian Church of Scotland; and most fortunately for science, the missionaries and their assistants who have been sent there, have been not only able and diligent in their proper calling, but also intelligent and observing men, who have availed themselves of their position to make and transmit to this country collections in different branches of natural history. The gentlemen I allude to are the Rev. Hope M. Waddell and the Rev. Mr. Goldie, Mr. W. C. Thomson and Mr. John R. Wylie. From all of these gentlemen collections have been received, from which I have profited, and which have put me in the position of being able to form something like a catalogue of the Coleoptera of that country. I think I may with justice say, that from these sources I possess a larger amount of materials for making up such a catalogue than any other person; and as a great number of the species are new and curious, and the whole are specially interesting in relation to the geographical distribution of species, I propose to give a list of the whole which I have received, intercalating descriptions of those which are new, with figures of the most striking. I shall have my labours in this respect a good deal curtailed by some of our most eminent entomologists, who are working at Monographs of particular groups. To them I have thought it right to entrust the new species in each of their departments; and these have either been already described and published, or are in course of being so. M. Chevrolat has described about fifty of the new *Longicornis*; M. Boheman in his Supplement will describe between twenty and thirty new *Cassidæ*; Mr. Westwood occupies himself with the new *Megalopidæ*, and M. Suffrian with the new *Cryptocephalidæ*; and my new *Elateridæ* are in the hands of M. Candeze, the first volume of whose work on that great family will probably ere this is printed be in the hands of entomologists.

I am very sensible that in the following pages I shall unavoidably occasionally fall into the error of describing as new, species which have been already described by other authors. The immense number of descriptions of species scattered through foreign Journals and Transactions of Societies, renders it hope-

less to expect to escape such mistakes. I see the ablest and best-informed entomologists, both at home and abroad, constantly falling into them, and I am not so unreasonable or self-confident as to expect a better fate. All I can say is, that when I do commit such errors, they are made "not in consequence of neglect, but in spite of attention."

That such errors are not much more numerous than they will be found to be, is greatly owing to the kindness of my friends, Mr. Adam White of the British Museum, and M. Chevrolat and M. Reiche of Paris, who have on every occasion laid freely open to me the extensive stores of information which they possess,—an assistance the value of which only those who have been engaged on similar works can justly appreciate.

I have not attempted to make this a work of synonymy, but in recording the species which have been already described, I have simply confined myself to giving their names, with one reference to the place where a description will be found; and while I have endeavoured to follow the rule of priority in selecting the name of the species, I have by no means followed that rule in choosing the reference to the description (the oldest descriptions being generally the most insufficient), but I have chosen that which appeared to me the best and was at the same time most generally accessible.

### Cicindelidæ.

#### CICINDELA, Linn.

##### 1. *C. senegalensis*, Dej. 1. 117.

Capite thoraceque viridi-cupreis, subrugosis; elytris viridi-æneis; margine laterali, lunula humerali apicalique, fascia media obliqua sinuata suturaque subsinuata abbreviata, albis.

Long.  $4\frac{1}{2}$  lin., lat.  $1\frac{1}{2}$  lin.

Only a few specimens have been received of this species. They vary a little from the usual form of *senegalensis* in having the thorax comparatively a little narrower, and the ground-colour of the elytra being less green, it being reddish-brassy with green reflections; but the markings are the same, and it corresponds in other respects; therefore I have no doubt it is merely a variety of *senegalensis*.

##### 2. *C. vicina*, Dej. 5. 244.

Var. *confusa*, mihi.

Subcylindrica, supra cupreo-viridi ænea; elytris margine laterali subinterrupto, lunula humerali subinterrupta, altera apicis

dentata, strigaeque media recurva subinterrupta incumbente, albis; femoribus subtus rufis.

Long. 4-5 lin., lat.  $1\frac{1}{3}$ - $1\frac{5}{4}$  lin.

The specimens I have from Old Calabar differ slightly from my other specimens of *vicina*, Dej., but not sufficiently to constitute a distinct species. The labrum is more prominent in the Old Calabar species, but that part varies a good deal in form, and particularly in the development of the three teeth in front. In the males they sometimes appear almost entirely wanting. The first joint of the antennæ in *vicina*, Dej., is green. In the Old Calabar species this joint is either wholly brown, or brown below with a virescent tinge above. The white marks on the elytra are broader in *vicina* than in this variety, and its apical margin of white slopes somewhat parallel with the margin, while in this variety its upper edge is nearly square or parallel with the base; but the breadth, extent and form of the white markings on the elytra vary a good deal in different individuals.

I obtained a specimen identical with my Old Calabar examples from M. Jekel, under the name of *confusa*, Gehin; but I have not been able to ascertain that it has been anywhere described by M. Gehin, whence I presume it is a MS. name, which I have preserved for the variety. M. Jekel's ticket bore "*melancholica*, Fab. non Dej." as a synonym; but I know not on what grounds this statement was made.

#### Var. *obliteranda*, mihi.

I have two specimens which I also consider as a variety of the above. The white markings on the elytra have here greatly diminished, so that the humeral lunule and middle band have disappeared, leaving only a white spot where they terminated; the distinct white margin has also been attenuated to an interrupted thread along the margin, and it is very little broader at the extreme apex. A more important distinction is that the granulations or punctuations on the thorax are much finer than in the var. *confusa*, in which they are coarse.

#### 3. *C. Lowei*, mihi.

Capite thoraceque obscure cupreis; elytris obscure viridi-æneis; margine laterali intus tridentato, punctis duobus apicem versus albis.

Long.  $5\frac{1}{4}$  lin, lat. 2 lin.

Closely allied to *C. Luxerii*, Dej. Dejean's description of *Luxerii* applies to this species, with the following exceptions:— This is rather larger, being  $5\frac{1}{4}$  lines in length instead of only  $4\frac{1}{2}$ ,

and proportionately broad. In *Luxerii* there are two small oblique whitish spots, near to and parallel with the angular sides of the scutellum, which are wanting in this species; a longish tear-shaped white spot alongside of the suture, distant from the base about  $\frac{1}{3}$ rd of the length of the elytra, is also wanting here. In *Luxerii* there is an oblique triangular spot near the apex, in some examples connected with the margin by a slender band, showing that this is merely a part of an interrupted hooked band. In *Loweii* this spot is confined to a small round or thread-like dot. The white margin is a good deal broader than in *Luxerii*, and a blackish violet-coloured edging on the outer side of the white margin is a good deal more prominent than in that species. The greater extent of the interior obscure space, arising from the larger size of the insect and the want of the small white spots in the middle and towards the base of the elytra, readily distinguish this species from *Luxerii*.

I have received four specimens, all of which are constant in the above characters.

I have named this species after my valued friend, Dr. William Henry Lowe of Balgreen, a naturalist of great ability and acquirements.

#### 4. *C. cincta*, Fab., Dej. 1. 40.

Supra obscura, subtus viridi-cyanea; elytris vitta laterali, punctisque quatuor albis.

Long.  $7\frac{1}{2}$  lin., lat.  $2\frac{1}{2}$  lin.

A good many specimens of this species have been received; but as it comes in some consignments and does not occur at all in others, it is obviously an insect found at particular seasons only. What these seasons are we have yet to discover.

### Carabidæ.

#### TEFFLUS, Leach.

##### 1. *T. planifrons*, mihi.

Niger; fronte depresso et plano, thorace rugoso; elytris sulcatis, sulcis elevato-punctatis.

Long. 21 lin., lat. 8 lin.

Very similar to *T. Megerlei*, Dej., but a narrower insect; the thorax more particularly is narrower and proportionately more elongate. It is at once distinguished from *Megerlei* by the sculpture on its head. *T. Megerlei* has two deep foveæ on each side of the head between the eyes, and the space between is raised into a height or bump; a deep transverse depression, widest and deepest in the centre, separates the head from the *clypeus*, which has a couple of longitudinal grooves on its sur-

face; another transverse depression separates the clypeus from the labrum. In the present species these depressions and elevations are, with the following exceptions, not visible. The head looks as if a heavy roller had passed over it, smoothing or crushing down all inequalities. The whole head is a flat opaque surface, with the exception of the transverse division separating the labrum from the clypeus, and the clypeus from the rest of the head, and of a couple of oblique lines (they can scarcely be called grooves) tending inwards from the side of the eye. Another difference is observable in the sulcation of the elytra; but as this may be variable, I do not insist so much upon it. In my specimens of *T. Megerlei* the sulcation is as follows:—the first sulcus next the suture comes down to the apex alone; the second is joined before it reaches the apex by the fourth, and encloses the third; the fourth again joins the sixth, enclosing the fifth; and the seventh comes down alone.

In the present species, on the other hand, the first, as in *Megerlei*, comes down alone; but the second, instead of joining the fourth and enclosing the third, joins the sixth; then within these the third and fifth join, and enclose the fourth. Trifling variations in the decidedness with which these junctions take place may be seen even on different elytra of the same insect; but I think the above is the normal character of these two species.

I have received two specimens of *planifrons*. On receiving the first, I was disposed to look upon it as a variety or distortion of *Megerlei*; but as I found the same characters occurring in the second, I am satisfied that it is a good species. These characters, more particularly the levelling of the head, which is very marked in both of my specimens, enable us at once to distinguish them from *Megerlei*.

#### DRYPTA, Fab.

##### 1. *D. pectoralis*, mihi.

Viridis; ore, pectore, antennis pedibusque rufis; geniculis atris vel fuscis.

Long.  $6\frac{1}{2}$  lin., lat.  $1\frac{3}{4}$  lin.

The colour above is a decided green, without the blue tinge of *emarginata*, Fab. The labrum, mandibles, palpi and antennæ are rufous, the tips of the mandibles and the end of the first joint of the antennæ becoming fuscous or blackish. There is no blackish ring on the second and third joints, as in *emarginata*. The under side is of the same colour as the upper, with the exception of the breast (*mesothorax* and *metathorax*), which is rufous. The head is oblong-square, extending two-thirds of its length before the eyes, which are not very prominent; it is

deeply and distinctly punctured, somewhat shining on the disk. The thorax is very narrow, elongate, deeply and closely punctured, and pubescent; it is slightly narrowed in front, and a little more so behind; its greatest breadth is about the middle. At first sight from above, it looks as if it were cylindrical, but on being examined from the side, a narrow ridge is seen to run along, forming the margin of the thorax. An indication of a longitudinal line, and of a fovea in the middle of the base, may be traced from the disposition of the punctuation, but nothing more. The elytra are twice as broad as the thorax, elongate, convex, contracted by a sinuation a little behind the base, and widened out posteriorly; their extremity is truncate, and the truncation is somewhat cut-in on each elytron; they are pubescent and strongly punctate-striate; the intervals are somewhat raised and irregularly punctate; the three outer striæ and intervals are curved inwards at the apex and reach the suture, cutting off the inner striæ, so that they do not reach the termination of the elytra. The legs are rufous, with the exception of the ends of the thighs, which are fuscescent or blackish.

This species approaches nearest in form to *D. cyanea*, Buq., but is readily distinguished by the red breast, red legs, &c., parts which in *cyanea* are wholly black. It is of a more elongate form than *D. emarginata*, Fab., and one-half longer; its colour wants the bluish tinge of *emarginata*, and the form of the thorax is different.

#### GALERITA, Fab.

##### 1. *G. femoralis*, mihi.

Nigra, pilosa; antennarum articulo primo femoribusque ferrugineis; thorace oblongo-cordato; elytris sulcatis, interstitiis concavis, subtilissime transversim rugosis, pilosis.

Long.  $10\frac{1}{2}$  lin., lat.  $3\frac{1}{2}$  lin.

Black, with the exception of the first joint of the antennæ and the thighs, which are ferruginous; the end of the terminal joint of the palpi is slightly ferruginous. The antennæ are pilose, which causes them to look fuscous towards the apex. The head is rather large, elongate, punctate, pubescent, and it has two longitudinal irregular foveæ between the eyes. The clypeus has one or two punctures on its anterior margin. The thorax is broader than the head, though not very much so; it is of an elongate-cordate form, rounded in front, a little narrowed posteriorly; its posterior angles are projecting and slightly raised; the projecting angles are rounded. It is somewhat convex, punctate on the disk, and transversely rugose-

punctate along the margins; it has a slightly marked medial longitudinal line, and a longitudinal depression along each side parallel to the margin. The front of the thorax is emarginate, the base is cut straight. The elytra are oblong, widened behind; each has nine longitudinal raised lines; the interstitial spaces are concave hollows, and under a strong lens they are found to be very finely transversely strigose, and covered with numerous scattered papillæ, from each of which arises a hair. The apex of the elytra is truncate, slightly sinuate towards the suture, which has a tendency to project; the under side is of the same colour as the upper, with the exception of the trochanters and thighs, which are ferruginous. The tips of the thighs are black. The pilose pubescence on this as well as the other species appears to be easily rubbed off.

This species comes very close to *G. africana*, Dej., but is distinguished by the thighs and first joint of the antennæ being red, while in *africana* they are black. The thorax is also somewhat more elongate.

## 2. *G. gracilis*, mihi.

Nigra, pilosa, elongata; thorace elongato-cordato, fortiter rugoso-punctato; elytris sulcatis, interstitiis concavis.  
Long.  $9\frac{1}{2}$  lin., lat. 3 lin.

Not to be distinguished from *G. africana*, Dej., except by a comparative description. It is smaller and more elongate; the thorax is proportionally narrower and more elongate; the anterior angles are less rounded, sloping forward to the head more gradually; the head is more deeply punctate, and the thorax more deeply rugose-punctate. The clypeus has the front and anterior margins reflexed; the centre of the front of it is raised, so as to leave a fovea on each side of the anterior margin. Like *africana* it is wholly black, with fuscous or ferruginous hairs beneath the tarsi. The tarsi are more elongate than in *africana*.

## 3. *G. interstitialis*, Dej. 5. 295.

Nigra; thorace cordato; elytris sulcatis, interstitiis concavis, bilineatis, subtilissime transversim striatis, pilosis.  
Long.  $9\frac{1}{2}$  lin., lat. 3 lin.

## MACROCHEILUS, Hope.

### 1. *M. grandis*, Dej. 5. 400.

Ater; labro subporrecto, lævigato; elytris elongatis, sulcatis.  
Long.  $12\frac{1}{2}$  lin., lat. 4 lin.

## ACANTHOGENIUS, Reiche.

1. *Acanthogenius bimaculatus*, Dej.\**Helvius bimaculatus*, Dej. 5. 402.*Acanthogenius bisignatus*, Reiche, Ann. Soc. Ent. France, ix. 334.

Ater, punctatissimus; labro rotundato, lævigato; elytris striatis, macula media rotundata pallide flavo-testacea; tarsis rufopiceis.

Long. 6 lin., lat. 2 lin.

## PHEROPSOPHUS, Solier.

1. *Ph. marginatus*, Dej. 1. 109.

Capite testaceo, puncto verticis nigro; thorace testaceo, margine antico posticoque nigris; elytris costatis, nigris, subparallelis, puncto humerali, margine laterali, fascia media dentata abbreviata, apice, antennis pedibusque testaceis.

Long. 7–8 lin., lat.  $2\frac{3}{4}$  lin.2. *Ph. minor*, mihi.

Capite testaceo, vertice et postice nigro; thorace supra nigro, vel nigro cum macula marginali testacea, subtus nigro, cum margine testaceo; elytris costatis, nigris, postice latioribus, interdum cum puncto humerali testaceo, interdum sine puncto humerali, cum macula media testacea dentata, apice leviter testaceo; pectore testaceo; abdomine nigro; antennis pedibusque testaceis.

Long.  $6\frac{1}{4}$ – $4\frac{1}{2}$  lin., lat.  $2\frac{1}{4}$ –2 lin.

The smallest species of *Pheropsophus* with which I am acquainted. Head and mouth testaceous, with the vertex and back part black, smooth in front, with a shallow depression on each side, faintly corrugated behind. Antennæ long, reaching to the middle of the elytra, fusco-testaceous, a little more dusky towards the tip. The upper side of the thorax is black, but sometimes a transverse testaceous blotch shows itself on each side of the thorax; it is smooth and impunctate, but some small depressions may be seen irregularly occurring along the

\* Dejean's name *bimaculatus* has been changed by M. Reiche, as above noted, into *bisignatus*, on the ground that M'Leay had previously occupied the name in the allied genus *Planetes* by his species *Planetes bimaculatus*. But I think this is carrying the dread of a double employment of names to an excessive extent. *Planetes* is recognized as a good and distinct genus from either *Macrocheilus* or *Acanthogenius*, and a repetition of the same specific name in each does not seem to entail any great inconvenience—certainly none so great as that of changing a well-known and established name.



margins; it has a deep longitudinal mesial line, scarcely extending to the front or base, and deepest where it joins the curved line in front; some wrinkles run off transversely from it. Elytra with nine strong smooth shining longitudinal ribs (counting the sutural and marginal ones), the spaces between the ribs covered with short longitudinal strigæ; black, with a transverse irregular testaceous-yellow spot a little before the middle of each elytron; the spot varies in size and form; it has usually a tooth or sometimes two projecting behind, and a larger prominence projecting in front. There is also another small spot of the same colour on the shoulder, but this is sometimes absent; and in such cases the spot in the middle is exceedingly reduced in size, so much so, that I should not be surprised to find individuals with the elytra wholly free from spots; but I have never seen any such. The extreme apex of the elytra has a narrow edging of testaceous colour, which extends forwards a very little way on the ribs. Looking carelessly, it would appear as if it were the ribs which gave the slightly yellow tinge to the extremity of the elytra; but the extreme margin of the apex is itself testaceous. The portion of the upper side of the abdomen projecting beyond the elytra is deeply punctate, black, with a tracing of yellow round the margins of the segments. The under side of the head is testaceous yellow; of the thorax black, more or less encroached upon by testaceous yellow; usually there is a testaceous line along the middle, and another along each side next the edge, but sometimes almost the whole under side of the thorax is yellow. The mesosternum is yellow; the rest of the breast is black, with the exception of a portion of the sides. The legs, the trochanters, the joints, and parts from which they spring, are yellow; the thighs are all slightly tipped with fuscous, more or less dark. The segments of the abdomen are black, with the exception of the middle of the posterior margin of the first segment, which is yellow when exposed.

CALLEIDA, Dej.

1. *C. ruficollis*, Fab., Dej. 5. 185.

Thorace, pectore, ano, antennarum femorumque basi, tibiisque quatuor posticis rufis; elytris viridibus; capite, abdomine, antennis pedibusque nigricantibus.

Long.  $4\frac{1}{4}$  lin., lat.  $1\frac{1}{4}$  lin.

[To be continued.]